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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/684,514	KWON, YOUNG-SIG	
	Examiner	Art Unit	
	CHRISTOPHER FINDLEY	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _29 January 2009_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1,2,4-16,18-32,34-43 and 45_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,2,4-16,18-32,34-43 and 45_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 1/29/2009 have been fully considered but they are not persuasive.

2. Re claim 1, the Applicant contends that the prior art cited fails to teach or suggest "a controller controlling transmission of the decoded disc related data recorded in the lead-in area." However, the Examiner respectfully disagrees. Ozawa states, "The system controller 21 reads out the management information included in the TOC by execution of an operation to play back information from the innermost circumference of the CD 91 in advance when the CD 91 is mounted on the CD unit for the first time, and stores the TOC typically in an internal RAM 21a employed in the system controller 21" (Ozawa: paragraph [0116]). Ozawa further discloses that the system controller 21 issues a variety of commands to the MD controller 11 in accordance with a clock signal CLK with a predetermined frequency based on the frequency of the PCLK signal obtained in the CD unit, various kinds of data and typically the state of a playback operation underway in the CD unit, wherein the various kinds of data include the TOC and the sub-codes obtained in a CD playback operation (Ozawa: paragraph [0120]). Since the claim language does not state that the management data itself is transmitted, the disclosure of Ozawa meets the claim limitations in that the management information from the TOC is used to control the transmission of data.

3. Re claim 1, the Applicant further contends that the prior art cited fails to teach or suggest any "signal to the receiving optical recording medium drive indicating a state of

the transmitting optical recording medium drive," or controlling the transmission of same. However, the Examiner respectfully disagrees. The cited paragraphs disclose the use of phase-locked loops (PLLs) for synchronizing the transmitting/receiving operation of the drives. As is well known in the art, such a configuration typically depends on measuring the timing difference between the time that a packet is transmitted and the time that a packet arrives at the destination device. Such a calculation inherently requires a pulse generated at the time of transmission or receipt, thereby acting as a de facto status of the transmission operation.

4. Re claim 1, the Applicant contends that the prior art cited fails to teach or suggest "a disc type determination unit which determines a type of the second optical recording medium on which the received data transmitted from the transmitting optical recording medium drive is recorded." However, the Examiner respectfully disagrees. The paragraph cited discloses that a value is set according to the type of disc, thereby indicating that the disc type is determined.

5. Re claim 1, the Applicant also contends that the prior art cited fails to teach or suggest "controlling transmission of a confirmation signal indicating a state of the receiving optical recording medium drive to the transmitting optical recording medium drive, when a copying key is pressed." However, the Examiner respectfully disagrees. As noted above in reference to the PLLs, confirmation of the packet being received is necessary in order to calculate the timing differences. Without confirming receipt of the packet, the system would be in an error condition. Accordingly, Denda is cited as requiring confirmation in order to avoid error suspension of the system.

6. A new detailed action, reflecting the amended claims, is included below.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 4-16, and 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nozaki et al. (US 6396998 B1) in view of Ozawa et al. (US 20010033531 A1) and Gehr (US 6453395 B1) and Denda et al. (US 6995936 B2).

Re **claim 1**, Nozaki discloses an optical recording medium copying apparatus, comprising: a transmitting optical recording medium drive in which a first optical recording medium is inserted, and which transmits data recorded on the inserted first optical recording medium when both a predetermined power and a copying signal are applied to the transmitting optical recording medium drive (Nozaki: Fig. 1 (Disc 1 and Disc 2); Fig. 12, copy operation is executed after key is pressed); a receiving optical recording medium drive in which second optical recording medium is inserted, which receives the data from the transmitting optical recording medium drive when both a predetermined power and a copying signal are applied to the receiving optical recording medium drive, and which records the received data on the inserted second optical recording medium (Nozaki: Fig. 1 and fig. 12); and communication lines between the transmitting and receiving optical recording medium drives used to transmit the data recorded on the first optical recording medium in the transmitting optical recording medium drive to the second optical recording medium in the receiving optical recording medium drive (Nozaki: Fig. 1, disc drives are connected through communication lines).

Nozaki additionally discloses that the transmitting optical recording medium drive comprises: a disc type determination unit which determines a type of the first optical recording medium inserted into the transmitting optical recording medium drive (Nozaki: Fig. 10, step B1); a decoding unit which decodes program area data recorded in a program area of the first optical recording medium (Nozaki: Fig. 1, element 15D) and also a storage unit which stores the received data transmitted from the transmitting optical recording medium drive (Nozaki: Fig. 1, element 20; column 7, lines 7-24); and a signal processor signal processing the received data stored in the storage unit to convert the received data into a recordable signal (Nozaki: Fig. 1, element 16 (Encoder)).

Nozaki does not explicitly disclose a disc related information decoding unit which decodes disc related data recorded in a lead-in area of the first optical recording medium; and a controller controlling transmission of the decoded disc related data recorded in the lead-in area and the decoded program area data recorded in the program area of the first optical recording medium to the receiving optical recording medium drive, controlling transmission of a signal to the receiving optical recording medium drive, when a copying key is pressed, the copying key installed outside the transmitting optical recording medium drive, and controlling transmission of a signal to the receiving optical recording medium drive indicating a state of the transmitting optical recording medium drive. However, Ozawa discloses that the lead-in area contains disc related control information (Ozawa: Fig. 9), and Ozawa describes communication between drives, wherein control is based on synchronization of the drives (Ozawa: paragraphs 0125], [0127], and [0132]-[0136]).

Nozaki also does not specifically disclose a disc type determination unit which determines a type of the second optical recording medium on which the received data transmitted from the transmitting optical recording medium drive is recorded; and a controller controlling sequential recording of the received converted data in a lead-in area, a program area, and a lead-out area of the second optical recording medium. However, Ozawa discloses a dubbing apparatus, where the type of disc is determined (Ozawa: paragraph [0196]) and sequential recording of the received converted data (Ozawa: paragraphs [0125] and [0127]) in a lead-in area (Ozawa: Fig. 8A;paragraph [0040]), a program area (Ozawa: Figs. 15A and 15B; paragraphs [0051]-[0052]), and a lead-out area (Ozawa: Fig. 8B; paragraph [0041]) of the second optical recording medium are controlled.

Since both Nozaki and Ozawa relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the disc format of Ozawa with the copying apparatus of Nozaki in order to prevent the freedom to use an apparatus having a dubbing function from being disturbed while taking protection of the copyright of the author into consideration (Ozawa: paragraph [0021]).

The combined apparatus of Nozaki and Ozawa does not specifically disclose controlling transmission of a confirmation signal indicating a state of the receiving optical recording medium drive to the transmitting optical recording medium drive. However, Denda discloses an information recording apparatus, where confirmation of the write operation is sent before the next data block is transmitted to the receiving drive (Denda: Fig. 5). Since Nozaki, Ozawa, and Denda all relate to writing to an optical disc, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the error resiliency of Denda with the combined copying apparatus of Nozaki and Ozawa in order to provide an information recording apparatus that can record the table-of-contents information while preventing the table-of-contents information that is necessary for data reproduction from being entirely destroyed.

The combined apparatus of Nozaki, Ozawa, and Denda does not specifically disclose that the copying operation is initiated when a copy key on the outside of the drive is pressed. However, Gehr discloses a disc copying drive with a copy button, where the copying operation is initiated when a copy key on the outside of the drive (Gehr: Figs. 2 and 3; column 2, lines 23-27) is pressed (Gehr: Fig. 4, element 400). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the method of disc type validation of Gehr with the combined apparatus of Nozaki, Ozawa, and Denda in order to automate and simplify the disc copying process and reduce the amount of action required on the part of the user (Gehr: column 1, lines 23-29).

Re **claim 4**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 4, as discussed above. Additionally, Nozaki discloses a storage unit that stores the decoded disc related data (Nozaki: Fig. 1, element 15B) and the decode program area data (Nozaki: Fig. 1, element 15C) output from both the disc related information decoding unit (Nozaki: Fig. 1, element 15A) and the decoding unit (Nozaki: Fig. 1, element 15D), respectively.

Re **claim 5**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 5, as discussed above. Nozaki does not specifically disclose that the disc type determination unit determines whether the first optical recording medium type is a stamp, a recordable or a rewritable optical recording medium containing audio data, video data, or data in a predetermined format. However, Gehr discloses a disc copying drive with a copy button, where it is determined whether the type of disc in the drive is compatible for the copying operation (Gehr: Fig. 7A). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to include the method of disc type validation from Gehr with the combined system in order to automate and simplify the disc copying process and reduce the amount of action required on the part of the user (Gehr: column 1, lines 23-29).

Re **claim 6**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 6, as discussed above, and additionally that the disc related information decoding unit decodes starting and ending points of lead-in area data of the first optical recording medium to decode the disc related data of the first optical recording medium, when the first optical recording medium is a recordable optical recording medium or a rewritable optical recording medium, the decoded disc related data including identification of the first optical recording medium and track information (Ozawa: Fig. 9). The combined system does not explicitly disclose using a program memory area (PMA) of the lead-in area of the first optical recording medium to decode the disc related data of the first optical recording medium, when the first optical recording medium is a recordable optical recording medium or a rewritable optical recording medium, the decoded disc related data including identification of the first optical recording medium and track information. However, The Examiner takes Official Notice that the program memory area (PMA) is well known as the place where information about tracks and sessions is temporarily stored in a recordable disc, and, therefore, one of ordinary skill in the art at the time of the invention would have found it obvious to store TOC information in the PMA in order to preserve the tracks of the original disc being copied.

Re **claim 7**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 7, as discussed above. Nozaki does not specifically disclose the features of claim 7. However, Ozawa discloses that the disc related information decoding unit decodes starting and ending points of data and a table of content (TOC) area of the lead-in area of the first optical recording medium to decode the disc related data, including TOC information, of the first optical recording medium, when the optical recording medium is a stamp optical recording medium (Ozawa: Fig.

9). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the disc format of Ozawa with the combined system in order to prevent the freedom to use an apparatus having a dubbing function from being disturbed while taking protection of the copyright of the author into consideration (Ozawa: paragraph [0021]).

Re **claim 8**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 8, as discussed above. Nozaki does not specifically disclose the features of claim 8. However, Ozawa discloses that the disc related information decoding unit decodes information indicating whether the program area data is recorded on the first optical recording medium in units of tracks, sessions, or optical recording media (Ozawa: Fig. 9, the TOC contains track information). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the disc format of Ozawa with the combined system in order to prevent the freedom to use an apparatus having a dubbing function from being disturbed while taking protection of the copyright of the author into consideration (Ozawa: paragraph [0021]).

Re **claim 9**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 8, as discussed above. Nozaki does not specifically disclose the features of claim 8. However, Ozawa discloses that the data recorded on the first optical recording medium is audio data, and the decoding unit decodes a sub-code, a sub-Q value, and the audio data (Ozawa: Fig. 6 and paragraph [0190]). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the disc format of Ozawa with the combined system in order to prevent the freedom to use an apparatus having a dubbing function from being disturbed while taking protection of the copyright of the author into consideration (Ozawa: paragraph [0021]).

Re **claim 10**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 10, as discussed above. Additionally, Nozaki discloses that the data recorded on the first optical recording medium is video data (Nozaki: Abstract section, VOBUs are video data), and the decoding unit decodes the video data and further checks whether an error has occurred in the decoded video data (Nozaki: Fig. 12).

Re **claim 11**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 11, as discussed above. Additionally, Nozaki discloses that the data recorded on the first optical recording medium is in a predetermined format (Nozaki: column 2, line 58, through column 3, line 27), and the decoding unit decodes the predetermined format data and further checks whether an error has occurred in the decoded predetermined format data (Nozaki: Fig. 12).

Re **claim 12**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 12, as discussed above. Additionally, Nozaki discloses that the controller checks a capacity of the storage unit and discontinues storing the decoded disc related and program area data in the storage unit when the storage unit is full (Nozaki: Fig. 8, element A2).

Re **claim 13**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 13, as discussed above. Additionally, Nozaki discloses that the controller controls transmission of the decoded program area data stored in the storage unit to the receiving optical recording medium drive in units of bytes (Nozaki: column 6, lines 51-57).

Re **claim 14**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 14, as discussed above. Additionally, Nozaki discloses that the transmitted decoded program area data amounts to a predetermined data block (Nozaki: column 6, lines 51-57). Nozaki does not specifically disclose that the controller waits to receive a confirmation from the receiving optical recording medium drive. However, Denda discloses an information recording apparatus, where confirmation of the write operation is sent before the next data block is transmitted to the receiving drive (Denda: Fig. 5). Since Nozaki, Ozawa, Denda, and Gehr all relate to writing to an optical disc, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the error resiliency of Denda with the combined copying system in order to provide an information recording apparatus that can record the table-of-contents information while preventing the table-of-contents information that is necessary for data reproduction from being entirely destroyed.

Re **claim 15**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 15, as discussed above. Nozaki does not specifically disclose the features of claim 15. However, Denda discloses that the transmission of the program area data is discontinued if the transmitting optical recording medium drive does not receive the confirmation (Denda: Fig. 5). Since Nozaki, Ozawa, Denda, and Gehr all relate to writing to an optical disc, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the error resiliency of Denda with the combined copying system in order to provide an information recording apparatus that can record the table-of-contents information while preventing the table-of-contents information that is necessary for data reproduction from being entirely destroyed.

Re **claim 16**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 16, as discussed above. Additionally, Nozaki discloses that the controller controls transmission of all decoded data stored in the storage unit to the receiving optical recording medium drive and sends a confirmation signal indicating termination of the data transmission to the receiving optical recording medium drive (Nozaki: Fig. 16, step D49).

Re **claim 18**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 18, as discussed above. Nozaki does not specifically disclose the features of claim 18. However, Gehr discloses that the disc type determination unit informs the transmitting optical recording medium drive that the received data transmitted from the transmitting optical recording medium drive cannot be recorded on the second optical recording medium, when the type of the second inserted optical recording medium is determined to be an optical recording medium other than a recordable optical recording medium or a rewritable optical recording medium (Gehr: Figs. 6A and 6B). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the method of disc type validation of Gehr with the combined apparatus of Nozaki, Ozawa, and Denda in order to automate and simplify the disc copying process and reduce the amount of action required on the part of the user (Gehr: column 1, lines 23-29).

Re **claim 19**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 19, as discussed above. Nozaki does not specifically disclose the features of claim 19. However, Gehr discloses that the disc type determination unit informs the transmitting optical recording medium drive that the received data transmitted from the transmitting optical recording medium drive cannot be recorded on the second optical recording medium, when the type of the second inserted optical recording medium is a stamp optical recording medium (Gehr: Figs. 6A and 6B). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the method of disc type validation of Gehr with the combined apparatus of Nozaki, Ozawa, and Denda in order to automate and simplify the disc copying process and reduce the amount of action required on the part of the user (Gehr: column 1, lines 23-29).

Re **claim 20**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 20, as discussed above. Nozaki does not specifically disclose the features of claim 20. However, Gehr discloses that the disc type determination unit prepares the second inserted optical recording medium for the recording, when the second optical recording medium is an unused blank recordable optical recording disc or a used rewritable optical recording disc from which data has been erased (Gehr: column 1, lines 34-36). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the method of disc type validation of Gehr with the combined apparatus of Nozaki, Ozawa, and Denda in order to automate and simplify the disc copying process and reduce the amount of action required on the part of the user (Gehr: column 1, lines 23-29).

Re **claim 21**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 21, as discussed above. Additionally, Nozaki discloses that the controller checks a capacity of the storage unit and controls recording of the received data on the second optical recording medium when a predetermined capacity of the storage unit occupied by the received data amounts to a predetermined level (Nozaki: Fig. 8, element A2).

Re **claim 22**, arguments analogous to those presented in claim 6 are applicable to claim 22, and, therefore, claim 22 has been analyzed and rejected with respect to claim 6 above.

Re **claim 23**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 23, as discussed above. Nozaki does not specifically disclose the features of claim 23. However, Ozawa discloses that the controller further generates a sub-code and a sub-Q value for a TOC area of the lead-in area after completing the recording in the PMA, and controls recording the TOC information, the generated TOC sub-code, and the generated TOC sub-Q value in the TOC area (Ozawa: paragraph [0190]). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the disc format of Ozawa with the combined system in order to prevent the freedom to use an apparatus having a dubbing function from being disturbed while taking protection of the copyright of the author into consideration (Ozawa: paragraph [0021]).

Re **claim 24** the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 24, as discussed above. Nozaki does not specifically disclose the features of claim 24. However, Ozawa discloses that the controller further generates a sub-code and a sub-Q value for a pre-gap area of a certain block after completing the recording in the TOC area, and controls recording of the generated pre-gap area sub-code and the generated pre-page area sub-Q value in the pre-gap area (Ozawa: paragraphs [0190] and [0192], the pregap area for compact discs is index 00). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the disc format of Ozawa with the combined system in order to prevent the freedom to use an apparatus having a dubbing function from being disturbed while taking protection of the copyright of the author into consideration (Ozawa: paragraph [0021]).

Re **claim 25**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 25, as discussed above. Nozaki does not specifically disclose the features of claim 25. However, Ozawa discloses that the controller generates a sub-code and sub-Q value for the lead-out area after completing the recording of received converted program area data in the program area, and controls recording of the generated lead-out area sub-code and the generated lead-out area sub-Q value in the lead-out area (Ozawa: Figs. 16A-16E). Since Nozaki, Ozawa, Denda, and Gehr relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the disc format of Ozawa with the combined system in order to prevent the freedom to use an apparatus having a dubbing function from being disturbed while taking protection of the copyright of the author into consideration (Ozawa: paragraph [0021]).

Re **claim 26**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 26, as discussed above. Nozaki does not specifically disclose the features of claim 26. However, Denda discloses that the controller transmits a confirmation signal indicating recording termination to the transmitting optical recording medium drive after completing the recording in the lead-out area (Denda: Fig. 5). Since Nozaki, Ozawa, Denda, and Gehr all relate to writing to an optical disc, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the error resiliency of Denda with the combined copying system in order to provide an information recording apparatus that can record the table-of-contents information while preventing the table-of-contents information that is necessary for data reproduction from being entirely destroyed.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozaki et al. (US 6396998 B1) in view of Ozawa et al. (US 20010033531 A1) and Gehr (US 6453395 B1) and Denda et al. (US 6995936 B2) as applied to claims 1, 4-16, and 18-26 above, and further in view of Takaku et al. (US 6295267 B1).

Re **claim 2**, the combined system of Nozaki, Ozawa, Denda, and Gehr discloses a majority of the features of claim 2, as discussed above. Nozaki does not explicitly disclose that the communication lines serially transmit the data recorded on the first optical recording medium in the transmitting optical recording medium drive to the second optical recording medium in the receiving optical recording medium drive. However, Takaku discloses a digital signal recording and dubbing system, wherein signals are communicated between drives via an IEEE 1394 interface (Takaku: column 5, lines 15-19), which is a serial communication interface, as is well known in the art. Since Nozaki, Ozawa, Denda, Gehr, and Takaku relate to dubbing operations, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the IEEE 1394 communication of Takaku with the combined dubbing system in order to enable fast transmission of data and control signals (Takaku: column 5, lines 15-19).

10. Claims 27-32 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehr (US 6453395 B1) in view of Ozawa et al. (US 20010033531 A1) in view of Takaku et al. (US 6295267 B1).

Re **claim 27**, Gehr discloses a method of copying an optical recording medium in an optical recording medium copying apparatus, the method comprising: determining types of optical recording media when the optical recording media are inserted into the transmitting and receiving optical recording medium drives (Gehr: Fig. 6, element 630) and a copying signal is input to both these drives (Gehr: Fig. 4, element 400 and Fig. 4, element 402).

Gehr does not specifically disclose converting in the transmitting optical recording drive data recorded in a lead-in area and data recorded in a program area of the transmitting optical recording medium, into data for transmitting, and transmitting the converted data to the receiving optical recording medium drive; and sequentially recording in the receiving optical recording medium drive received data transmitted by the transmitting optical recording medium drive in a lead-in area and a program area of the receiving optical recording medium, generating lead-out area data to be recorded in a lead-out area of the receiving optical recording medium, and recording the generated lead-out area data in the lead-out area. However, Ozawa discloses a dubbing method, where the TOC data in the lead-in area (Ozawa: Fig. 9) is used to gather track information, which in turn is used in designating the data to be dubbed (Ozawa: Figs. 16A-16E), and lead-out write addresses are generated for the dubbing operation (Ozawa: Figs. 16A-16E).

Gehr also does not specifically disclose that the data conversion in the transmitting optical recording drive comprises: decoding the data recorded in the lead-in area of the transmitting optical recording medium; decoding the data recorded in the program area of the transmitting optical recording medium; and transmitting the decoded data recorded in the lead-in area and the program area to the receiving optical recording medium drive. However, Ozawa discloses that the data conversion in the transmitting optical recording drive comprises: decoding the data recorded in the lead-in area of the transmitting optical recording medium (Ozawa: Fig. 9); decoding the data recorded in the program area of the transmitting optical recording medium (Ozawa: Fig. 9); and transmitting the decoded data recorded in the lead-in area and the program area to the receiving optical recording medium drive (Ozawa: Figs. 16A-16E).

Gehr further fails to explicitly disclose that the recording in the receiving optical recording medium drive comprises: generating a sub-code and a sub-Q value for the lead-in area of the receiving optical recording medium using the received data; generating a sub-code and a sub-Q value for a TOC area of the lead-in area of the receiving optical recording medium using the received data; recording TOC information, the generated TOC sub-code, and the generated TOC sub-Q value in the TOC area; generating a sub-code and a sub-Q value for a pre-gap area having predetermined blocks on the receiving optical recording medium using the received data; recording the generated pre-gap area sub-code and the generated pre-gap area sub-Q value in the pre-gap area; generating a lead-out area sub-code and a lead-out sub-Q value for the lead-out area of the receiving optical recording medium; and recording the generated lead-out sub-code and the generated lead-out sub-Q value in the lead-out area. However, Ozawa discloses that the recording in the receiving optical recording medium drive comprises: generating a sub-code and a sub-Q value for the lead-in area of the receiving optical recording medium using the received data (Ozawa: paragraph [0190]); generating a sub-code and a sub-Q value for a TOC area of the lead-in area of the receiving optical recording medium using the received data (Ozawa: paragraph [0190]); recording TOC information, the generated TOC sub-code, and the generated TOC sub-Q value in the TOC area (Ozawa: paragraph [0190]); generating a sub-code and a sub-Q value for a pre-gap area having predetermined blocks on the receiving optical recording medium using the received data (Ozawa: paragraphs [0190] and [0192]); recording the generated pre-gap area sub-code and the generated pre-gap area sub-Q value in the pre-gap area (Ozawa: paragraphs [0190] and [0192]); generating a lead-out area sub-code and a lead-out sub-Q value for the lead-out area of the receiving optical recording medium (Ozawa: Figs. 16A-16E); and recording the generated lead-out sub-code and the generated lead-out sub-Q value in the lead-out area (Ozawa: Figs. 16A-16E).

Since both Gehr and Ozawa relate to copying data from one recording medium to another recording medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the disc format of Ozawa with the disc type versatility and dubbing method of Gehr in order to prevent the freedom to use an apparatus having a dubbing function from being disturbed while taking protection of the copyright of the author into consideration (Ozawa: paragraph [0021]).

Neither Gehr nor Ozawa explicitly discloses that a transmitting optical recording medium drive operates when a predetermined power is applied to the transmitting drive and a receiving optical recording medium drive operates when a predetermined power is applied to the receiving drive and transmits or receives data using a communication line which is different from a communication line used by the transmitting optical recording medium drive. However, Takaku discloses a digital signal recording and dubbing system, wherein signals are communicated between drives via an IEEE 1394 interface (Takaku: column 5, lines 15-19), which is includes separate twisted pairs of wires for transmitting and receiving, as is well known in the art. Since both Nozaki and Takaku relate to dubbing operations, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the IEEE 1394 communication of Takaku with the system of Nozaki in order to enable fast transmission of data and control signals (Takaku: column 5, lines 15-19).

Furthermore, the combined method of Gehr, Ozawa, and Takaku does not explicitly disclose generating a sub-code and a sub-Q value for a program memory area (PMA); recording identification of the transmitting optical recording medium, track information, the generated PMA sub-code, and the generated PMA sub-Q value in the PMA; and detecting program area data recorded in a program area of the transmitting optical recording medium from the received data; recording the detected program area data in the program area of the receiving optical recording medium. However, The Examiner takes Official Notice that the program memory area (PMA) is well known as the place where information about tracks and sessions is temporarily stored in a recordable disc, and, therefore, one of ordinary skill in the art at the time of the invention would have found it obvious to store TOC information, including sub-Q information, in the PMA in order to preserve the tracks of the original disc being copied.

Re **claim 28**, the combined method of Gehr, Ozawa, and Takaku discloses that the transmitting and receiving optical recording medium drives serially exchange data via the communication lines between the transmitting and receiving drives (Ozawa: paragraph [0246]).

Re **claim 29**, the combined method of Gehr, Ozawa, and Takaku discloses that the determining of the types of the optical recording media comprises determining whether the transmitting optical recording medium is a stamp, recordable or rewritable optical recording medium containing audio data, video data, or data of a particular format (Gehr: Fig. 7A).

Re **claim 30**, the combined method of Gehr, Ozawa, and Takaku discloses that the determining of the types of the optical recording media comprises informing the transmitting optical recording medium drive that the converted data transmitted from the transmitting optical recording medium drive cannot be recorded on the receiving optical recording medium, if determined that the receiving optical recording medium is an optical recording medium type other than a recordable optical recording medium or a rewritable optical recording medium (Gehr: Fig. 7D).

Re **claim 31**, the combined system of Gehr, Ozawa, and Takaku discloses that the determining of the types of the optical recording media comprises informing the transmitting optical recording medium drive that the converted data transmitted from the transmitting optical recording medium drive cannot be recorded on the receiving optical recording medium, if determined that the receiving optical recording medium is a stamp optical recording medium type (Gehr: Fig. 6B, steps 618, 620, 622, and 624).

Re **claim 32**, the combined method of Gehr, Ozawa, and Takaku discloses that the determining of the types of the optical recording media comprises preparing the receiving optical recoding media for the recording, if determined that the receiving optical recording medium is an unused blank recordable optical recording disc or a used rewritable optical recording disc from which data has been erased (Gehr: column 1, lines 34-36).

Re **claim 34**, arguments analogous to those presented for claim 6 are applicable to claim 34, and, therefore, claim 34 has been analyzed and rejected with respect to claim 6 above.

Re **claim 35**, arguments analogous to those presented for claim 7 are applicable to claim 35, and, therefore, claim 35 has been analyzed and rejected with respect to claim 7 above.

Re **claim 36**, arguments analogous to those presented for claim 8 are applicable to claim 36, and, therefore, claim 36 has been analyzed and rejected with respect to claim 8 above.

Re **claim 37**, arguments analogous to those presented for claim 9 are applicable to claim 37, and, therefore, claim 37 has been analyzed and rejected with respect to claim 9 above.

11. Claims 38-40, 43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehr (US 6453395 B1) in view of Ozawa et al. (US 20010033531 A1) in view of Takaku et al. (US 6295267 B1) as applied to claims 27-32 and 34-37 above, and further in view of Nozaki et al. (US 6396998 B1).

Re **claim 38**, the combined system of Gehr, Ozawa, and Takaku discloses a majority of the features, but does not explicitly disclose the data recorded on the first optical recording medium is video data, and the decoding unit decodes the video data and further checks whether an error has occurred in the decoded video data. However, Nozaki discloses a DVD recording/reproducing system, wherein VOBUs are video data (Nozaki: Abstract section) and an error check is performed (Nozaki: Fig. 12, "meet your expectation?"). Since Gehr, Ozawa, Takaku, and Nozaki all relate to disc copy systems, one of ordinary skill in the art a the time of the invention would have found it obvious to combine the error check of Nozaki with the combined system of Gehr, Ozawa, and Takaku in order to achieve the highest quality images possible. The combined system of Gehr, Ozawa, Takaku, and Nozaki has all of the features of claim 38.

Re **claim 39**, arguments analogous to those presented in claim 11 are applicable to claim 39, and, therefore, claim 39 has been analyzed and rejected with respect to claim 11 above.

Re **claim 40**, arguments analogous to those presented in claim 13 are applicable to claim 40, and, therefore, claim 40 has been analyzed and rejected with respect to claim 13 above.

Re **claim 43**, arguments analogous to those presented in claim 16 are applicable to claim 43, and, therefore, claim 43 has been analyzed and rejected with respect to claim 16 above.

Re **claim 45**, arguments analogous to those presented in claim 16 are applicable to claim 45, and, therefore, claim 45 has been analyzed and rejected with respect to claim 16 above.

12. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehr (US 6453395 B1) in view of Ozawa et al. (US 20010033531 A1) in view of Takaku et al. (US 6295267 B1) as applied to claims 27-32 and 34-37 above, and further in view of Denda et al. (US 6995936 B2).

Re **claim 41**, the combined system of Gehr, Ozawa, and Takaku discloses a majority of the features of claim 41, as discussed above in claim 33, but does not specifically disclose that the decoded data transmission comprises waiting to receive a confirmation signal from the receiving optical recording medium drive when the transmitted decoded data amounts to a predetermined data block. However, Denda discloses an information recording apparatus, where confirmation of the write operation is sent before the next data block is transmitted to the receiving drive (Denda: Fig. 5). Since Gehr, Ozawa, Takaku, and Denda all relate to writing to an optical disc, one of ordinary skill in the art at the time of the invention would have found it obvious to combine the error resiliency of Denda with the combined system of Gehr, Ozawa, and Takaku in order to provide an information recording apparatus that can record the table-of-contents information while preventing the table-of-contents information that is necessary for data reproduction from being entirely destroyed. The combined system of Gehr, Ozawa, Takaku, and Denda has all of the features of claim 41.

Re **claim 42**, the combined system of Gehr, Ozawa, Takaku, and Denda discloses that decoded data transmission comprises stopping transmission of the decoded data, if the transmitting optical recording medium drive does not receive the confirmation signal (Denda: Fig. 5).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a. Information recording and reproducing apparatus for copying information from exchangeable master recording medium to a plurality of other exchangeable recording media

Soga et al. (US 5610893 A)

b. Dubbing apparatus and dubbing method

Fujisawa et al. (US 6804181 B2)

c. Optical disc player and method for reproducing thereof

Han et al. (US 7050376 B2)

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER FINDLEY whose telephone number is (571)270-1199. The examiner can normally be reached on Monday-Friday (8:30 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Christopher Findley/